UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,963	02/15/2002	William Bares	9259-2	1465

20792 7590 01/19/2007 MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627	**EXAMINER** PIERRE, MYRIAM

ART UNIT	PAPER NUMBER
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/076,963	BARES ET AL.
	Examiner	**Art Unit**	
	Myriam Pierre	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on ·09/19/06.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. This communication is response to Remarks filed 09/19/06.

Response to Arguments

2. Applicant's arguments with respect to claims 1-66 have been considered but are moot in view

of the new ground(s) of rejection.

Response to Amendment

3. This communication is in response to Remarks, filed 9/19/06.

4. The claims 1-60 are pending and claims 17, 39 and 61 are amended.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign
country or in public use or on sale in this country, more than one year prior to the date of
application for patent in the United States.

6. Claims 1-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Beck et al.

(6,138,139).

As per claim 1, 23, and 45, Beck et al. teach a method of responding to a

customer communication comprising:

- receiving an utterance (incoming calls, via recorded calls, col. 12 lines 15-

20; Fig. 3 element 95 and Fig. 8 element 245) from the customer at an agent executing on a data

processing system (Fig. 2 element, agent a and customer a).

- generating a response to the utterance received from the customer at the

agent based on a knowledge base (col. 11 lines 63-col. 12 line 3; Fig. 5 element 137, voice

wizard and Fig. 7 MIS database as knowledge base)

-sending the response from the agent to the customer (Fig. 2 from agent b to customer c)

a knowledge base that comprises at least one exemplary conversation

comprises an exchange of utterances (Fig. 3 element 113, and Fig. 8 element 243; col. 11 lines

63-col. 12 line 3; utterances are speech to text, and the option of voice data is in recorded calls

and v-phone calls).

As to claims 2, 24, and 46, which depend on claims 1, 23 and 45, Beck et al. teach

generating the response to the utterance received from the customer comprising;

- analyzing the utterance received from the customer based on at least one of the

following:

at least one prior utterance received from the customer (Fig. 3 elements 101-105).

As to claims 3, 25, and 47, which depend on claims 1, 23, and 45, Beck et al. teach a

method where:

- at least one prior utterance received from the customer (Fig. 3 elements 101-105) and at

least one prior response sent from the agent to the customer (Fig. 2 customer a and agent b; col.

11 lines 63-col. 12 line 3) provide a contextual framework (context resolution, Fig. 2 element 91).

As to claims 4, 26, and 48, which depend on claims 1, 23, and 45, Beck et al. teach a method comprising:

- maintaining a conversation model having a current state that is representative of the at least one prior utterance received from the customer and at least one prior response from the agent to the customer (Fig. 3 element 105)

- updating the current state (live call or real time, Fig. 3 element 99) of the conversation model based on the utterance received from the customer (Fig. 3 elements 101, 103, and 105; col. 11 lines 63-col. 12 line 3) and the response sent from the agent to the customer (Fig. 2 customer a and agent b).

As to claims 5, 27, and 49, which depend on claims 2, 24, and 46, Beck et al. teach a method where analyzing the utterance received from the customer comprises a plurality of data strings (Fig. 7 elements 189 and 199, speech to text and text to speech), and wherein recognizing the part of the utterance received from the customer comprises at least one of the following:

- recognizing one of the plurality of data strings based on the knowledge base (Fig. 7 element 189 MIS database and Fig. 3 element 101) that comprises the information extracted from the at least one exemplary conversation (Fig. 3 element 101; knowledge base comes from real-time calling which includes conversation, which is stored as an example).

As to claims 6, 28, and 50, which depend on claims 5, 27, and 49, Beck et al.

wherein the utterance received from the customer comprises a plurality of data strings,

and wherein recognizing the part of the utterance received from the customer comprises at least

one of the following:

recognizing a sub-combination on the plurality of data strings based on the knowledge

base that comprises the information extracted from at least one exemplary conversation (Fig. 3

elements 99, 101 and 113; data extracted from knowledge base is example conversation which is

in element 99);

recognizing one of the plurality of data strings based on the knowledge base that

comprises the information extracted from the at least exemplary conversation (Fig. 3 element 99

and Fig. 7 element 191; data string comes from text-database).

As to claim 8, 30, and 52, which depend on claims 5, 27, and 49, Beck et al. teach:

- a method wherein recognizing the part of the utterance received from the customer (col.

9 lines 39-45)

- associating the utterance received from the customer with an information type that

corresponds to at least:

- one of a predefined information arrangement (col. 11 lines 39-51; categorize

information is predefined information arrangement); and

- a predefined information meaning (col. 11 lines 39-51; information is related as context,

giving it predefined meaning).

As to claims 9, 31, and 53, which depend on claims 2, 24, and 46, Beck et al. teach

- sending the utterance received from the customer and the response sent from the agent

to the customer to a customer service representative (col. 11 lines 63-col. 12 line 3).

As to claims 10, 32, and 54, which depend on claims 9, 31, and 54, Beck et al. teach a

method comprising

wherein the at least one prior utterance received from the customer and the at least one

prior response sent from the agent to the customer provide a contextual framework for analyzing

the utterance received from the customer, the method further comprising:

- maintaining a conversation model having a current state that is representative of the at

least one prior utterance received from the customer and at least one prior response from the

agent to the customer col. 11 lines 63-col. 12 line 3)

- updating the current state of the conversation model based on the utterance received

from the customer and the response sent from the agent to the customer (col. 39 lines 50-54).

As to claims 11, 33, and 55, which depend on claims 1, 23, and 54, Beck et al. teach a

method wherein generating the response to the utterance received from the customer comprises:

- receiving a notification from a CSR of intent to communicate with the customer (col. 40

lines 6-11).

As to claims 12, 34, and 56, which depend on claims 11, 33, and 55 Beck et al. teach a

method wherein generating the response to the utterance received from the customer comprises

generating at least one response to the utterance received from the customer at the agent

(col. 40 lines 52-60); and

wherein sending the response from the agent to the customer comprises:

sending the proposed response to the supervisor for approval if the proposed response is

determined to be inappropriate (col. 40 lines 5-10);

sending the proposed response to the customer if the proposed response is determined to

be appropriate (col. 40 lines 52-63).

As to claims 13, 35, and 57, which depend on claims 11, 33, and 55, Beck et al. teach

generating at least one response to the utterance received from the customer at the agent

based on the knowledge base that comprises information extracted from at least one exemplary

conversation (col. 40 lines 52-60); and wherein sending the response from the agent to the

customer comprises:

sending the at least one response to the customer server representative (col. 40 lines 52-

60);

receiving a selection of at least one response from the customer service representative at

the agent (col. 30 lines 49-55); and

sending the selected one of the at least one response from the agent to the customer (col.

30 lines 49-55 and col. 40 lines 34-40).

As to claims 14, 36, and 58, which depend on claims 1, 23, and 45, Beck et al. teach

- recording the utterance received from the customer and the response sent from the agent

to the customer in a conversation log (col. 39 lines 50-54 and col. 40 lines 52-60)

As to claims 16, 38, and 60, which depend on claims 1, 23, and 45, Beck et al.

teach a method wherein generating the response to the utterance received from the

customer comprises:

- determining if the response to the utterance received from the customer can be

generated at the agent based on the knowledge base that comprises information extracted from at

least one exemplary conversation (col. 39 lines 50-54); and

- sending the utterance received from the customer to a CSR if the response cannot be

generated at the agent based on the knowledge base that comprises information extracted from

the at least one exemplary conversation (col. 31 lines 11-25); and

generating the response to the utterance received from the customer at the CSR (col. 40

lines 52-60).

As to claims 7, 29, and 51, which depend on claims 5, 27, and 49, Beck et al.

teach a method where recognizing the utterance received from the customer

comprises associating the utterance received from the customer with an

information type that corresponds to at least one of a predefined information

arrangement and a predefined information meaning that correspond to at least one of the ·

predefined information arrangement and a predefined information meaning (col. 11 lines 39-51;

predefined meaning and arrangement is found in the context and categorization of the

conversation or speech).

As to claims 15, 37, and 59, which depend on claims 14, 36, and 45, Beck et al. teach

editing the conversation log to correct, inherently reviewing the conversation log to

determine if the agent sent an improper response to the customer the improper response if the

agent sent the improper response to the customer (col. 31 lines 11-20)

a method where recognizing the utterance received from the customer

comprises associating the utterance received from the customer with an information type that

corresponds to at least one of a predefined information arrangement and a predefined

information meaning that correspond to at least one of the predefined information arrangement

and a predefined information meaning (col. 11 lines 39-51; predefined meaning and arrangement

is found in the context and categorization of the conversation or speech).

As to claims 17, 39, and 61, Beck et al teach a method of training an agent to respond to a

customer communication, comprising:

annotating the compiled at least one conversation to categorize information contained

therein (col. 11 lines 39-51);

processing the annotated at least one conversation using a machine learning engine (col.

31 lines 11-20; learning engine works via updating); compiling at least one exemplary

conversation, where in the at least one exemplary conversation comprises an exchange of

utterance (col. 39 lines 50-54).

As to claims 18, 40, and 62, which depend on claims 17, 39, and 61, Beck et al teach a

method wherein annotating the compiled at least one conversation comprises:

presenting a user with a plurality of categories for annotating the at least one conversation

(col. 11 lines 39-51); and

associating respective one of the plurality of categories with respective parts of the at

least one conversation based on user input (col. 39 lines 50-54).

As to claims 19, 41, and 63, which depend on claims 18, 40, and 62, Beck et al teach a

method wherein parts of the utterances comprising the at least one conversation comprise

sentences (col. 39 lines 50-54).

As to claims 20, 42, and 64, which depend on claims 19, 41, and 63, Beck et al. teach a

method wherein presenting the user with the plurality of categories comprises:

-       presenting the user with a plurality of categories based on intent for annotating the

sentences (col. 11 lines 39-51), and

-       presenting the user with a plurality of categories based on semantic content for

annotating the words (col. 11 lines 39-51 and col. 11 lines 39-51).

As to claims 21, 43, and 65, which depend on claims 19, 41, and 63, Beck et al teach a

method comprising:

- verifying that all words that are determinative to the meaning of utterances comprising

the at least one conversation are annotated (col. 39 lines 50-54 and col. 31 lines 11-20).

As to claims 22, 44,and 66 which depend on claims 17, 39, and 61, Beck et al teach

a method wherein the at least one conversation comprises a conversation in which the
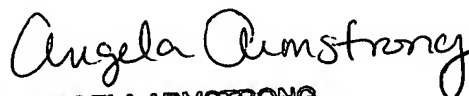
agent was a participant col. 39 lines 50-54).

Conclusion

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611.

The examiner can normally be reached on Monday - Friday from 5:30 a.m. - 2:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information as to the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/22/06

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